

**Michigan Department of Environmental Quality
Well Construction Unit**

Steel Casing Specifications Comparison

SCOPE			
<u>ASTM A53</u> Seamless/Welded Black and Hot-Dipped Galvanized Steel Pipe <u>Type F:</u> furnace-butt welded, continous welded <u>Type E:</u> electric-resistance welded (Grade A or B) <u>Type S:</u> seamless, (Grade A or B)	<u>ASTM A106</u> Seamless Carbon Steel Pipe-High Temperature Service with ANSI B36.10 wall thickness (Grade A or B)	<u>ASTM A589</u> Threaded/Coupled Carbon Steel Pipe <u>Type I:</u> "Drive Pipe, seamless or electric resistance welded (Grade A or B) <u>Type II:</u> Water Well Reamed and Drifted Pipe", seamless or electric resistance welded (Grade A or B) or furnace-butt welded <u>Type III:</u> Driven Well Pipe"" seamless or electric-resistance welded (Grade A or B) or furnace-butt welded (Type F) <u>Type IV:</u> "Water-Well Casing Pipe"" seamless or electric-resistance welded, (Grade A or B) or furnace-butt welded (Type F)	<u>API 5L</u> Seamless/Welded Steel Line Pipe <u>Types of Pipe</u> <u>Grade A or B:</u> common type of API pipe used as casing <u>Other Grades:</u> double-strength, not applicable as well casing
SIZE			
<u>ASTM A53</u> 1/8 in. to 26 in. NPS	<u>ASTM A106</u> 1/8 in. to 48 in. NPS	<u>ASTM A589</u> 1 in. to 16 in. NPS	<u>API 5L</u> 1/8 in. to 60 in. NPS
TERMINOLOGY			
<u>ASTM A53</u> None	<u>ASTM A106</u> None	<u>ASTM A589</u> Imperfection - any discontinuity or irregularity Defect - any imperfection causing rejection	<u>API 5L</u> Shall - mandatory Should - recommended May - optional

Steel Casing Specifications Comparison

MANUFACTURE

ASTM A53

Open Hearth, Electric Furnace
Basic Oxygen Cast in ingots
or strand cast - Tempering or
other processing required on
ERW weld seam (Grade B) to
remove untempered martensite

ASTM A106

Open Hearth, Electric Furnace,
Basic Oxygen Cast in ingots
or strand cast

ASTM A589

Open Hearth, Electric Furnace,
Basic Oxygen cast in ingots
or strand cast

API 5L

Seamless - steel hot worked
to form tubular product
without welded seam
welded - without filler

1) Continuous: skelp heated
and mech. pressed together
to form weld (butt-weld)
2) Electric: steel mechanically
pressed together with heat
to form weld generated by
electric current

welded - with filler

1) Submerged Arc:
coalescence by heating with
electric arc, shielded by
blanket of granular fusible
material, filler from
electrodes, no pressure

CHEMICAL COMPOSITION

ASTM A53

Composition,	Max %	
	Grade A	Grade B & Type F
Carbon	0.25	0.30
Manganese	0.95	1.20
Phosphorus	0.05	0.05
Sulfur	0.045	0.045
Copper *	0.40	0.40
Nickel *	0.40	0.40
Chromium *	0.40	0.40
Molybdenum *	0.15	0.15
Vanadium *	0.08	0.08

* Combination of these elements
shall not exceed 1.00%

ASTM A106

Composition,	Max %		
	A	Grade B	C
Carbon	0.25	0.30	0.35
Manganese ▲	0.27	0.29	0.29
Phosphorus	0.035	0.035	0.035
Sulfur	0.035	0.035	0.035
Silicon, Min.	0.10	0.10	0.10
Copper *	0.40	0.40	0.40
Nickel *	0.40	0.40	0.40
Chromium *	0.40	0.40	0.40
Molybdenum *	0.15	0.15	0.15
Vanadium *	0.08	0.08	0.08

▲ See specification for range

ASTM A589

Composition:	Max %
Phosphorus	0.05
Sulfur	0.06

API 5L

Composition:	Max %
Carbon	0.21 - 0.27
Manganese	0.60 - 1.15
Phosphorus	0.04 - 0.08
Sulfur	0.06

Max. % dependent on grade
of pipe

See specification for details.

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Steel Casing Specifications Comparison

ANALYSIS

ASTM A53

Chemical analysis shall conform to ASTM A 751

ASTM A106

Chemical composition of heat shall be performed by manufacturer

ASTM A589

Chemical composition of heat shall be performed by manufacturer

API 5L

Chemical composition of heat shall be performed by manufacturer

NOTE: Chemical analysis requirements are similar through all specifications

Refer to individual specification for details.

TENSILE REQUIREMENTS

ASTM A53

Tensile Strength (min. psi):

Type F	Types E and S	
	Grade A	Grade B
48,000	48,000	60,000

Yield Strength (min. psi):

Type F	Types E and S	
	Grade A	Grade B
30,000	30,000	35,000

ASTM A106

Tensile Strength (min. psi):

Grade A	Grade B	Grade C
48,000	60,000	70,000

Yield Strength (min. psi):

Grade A	Grade B	Grade C
30,000	35,000	40,000

ASTM A589

Tensile Strength (min. psi):

Butt Welded	Grade A	Grade B
45,000	48,000	60,000

Yield Strength (min. psi):

Butt Welded	Grade A	Grade B
25,000	30,000	35,000

API 5L

Tensile Strength (min. psi):

Grade A	Grade B
48,000	60,000

Yield Strength (min. psi):

Grade A	Grade B
30,000	35,000

(For other pipe grades, consult API specification)

Elongation in 2": Similar values computed with same equation,
Higher Tensile Strength = Lower Elongation

BENDING REQUIREMENTS

ASTM A53

90° Cylindrical Mandrel 12x Pipe Diameter/No Cracks

ASTM A106

Standard: 90° Cylindrical Mandrel 12x Pipe Diameter/No Cracks
Close Coiling: 180° Cylindrical Mandrel 8x NPS/Without Failure

ASTM A589

None

API 5L

90° Cylindrical Mandrel 12x Pipe Diameter/No Cracks

Steel Casing Specifications Comparison

FLATTENING TEST

ASTM A53

Required on pipe over 2 in.

Separately addresses seamless, electric-resistance welded and continuous welded methods.

Butt weld: H = 60% O.D.
Elec.-Resist: H = 33% O.D.
Seamless: Flat to H

("H" is defined by equation)

ASTM A106

Addresses seamless/centrifugally cast pipe and welded pipe H as defined for seamless in A 53

ASTM A589

NONE

API 5L

Required on electric or continuous-welded pipe
Grade 25: Flatten to 75% O.D. without weld break; 60% O.D. without cracks except weld
Other Grades: Flatten 67% O.D. without weld break; 33% O.D. without break except weld

HYDROSTATIC TEST

ASTM A53

Each length must be tested by the manufacturer

Not Required on Seamless Pipe

ASTM A106

Required unless purchaser specifies no hydrostatic testing or NDE in lieu of hydrostatic testing

ASTM A589

Each length of pipe must be tested the mill

API 5L

Similar requirements and pressures to ASTM A 589

Test Pressures: depends on weight or schedule, grade and manufacture Similar Pipe = Similar Pressure

NONDESTRUCTIVE ELECTRIC TESTS (NDE)

ASTM A53

ERW Pipe: must be tested
SEAMLESS Pipe: NDT may be used as alternative to hydrostatic testing - Pipe marked "NDE"

ASTM A106

NDE may be used as alternative to hydrostatic testing - Pipe must be marked "NDE"

ASTM A589

NONE

API 5L

Required Grade A, B
Submerged Arc: inspected by radiological and ultrasonic methods
Electric Weld: inspected by ultrasonic or electromagnetic
Gas-Metal Arc: inspected by ultrasonic and radiological methods

[NOTE: NDT is test of structural integrity based upon electrical/ultrasonic or radiological continuity]

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Steel Casing Specifications Comparison

NUMBER OF TESTS

ASTM A53

Seamless, ERW: one test for tensile, bending, and flattening for each 500 lengths

Continuous Weld: one test per 50 ton lot

ASTM A106

Tensile: Under 6" - 1 test/400 lengths; +6" - 1 test/200

Bend: Under 2" - 1 test/400 lengths or 5% each lot

Flattening: same as tensile test

ASTM A589

Similar to A 53

API 5L

Full length inspection all pipe

RETESTS

ASTM A53

Failure: results in double test on remaining lots

Second Failure: reject

ASTM A106

Failure: one retest allowed

ASTM A589

Same As A 53

API 5L

Rejection/Retest requirements more complex and stricter than ASTM

TOLERANCES ON WEIGHTS & DIMENSIONS

ASTM A53

REQUIRED

Weight: $\pm 10\%$

Diameter: $\pm 1\%$

Wall Thickness: not more than 12.5% under thickness listed in specification

ASTM A106

REQUIRED

Weight: $\pm 10\%$

Diameter: Variation spec.

Wall Thickness: not more than 12.5% under thickness listed in specification

ASTM A589

REQUIRED

Weight: $\pm 5\%$

O.D.: $\pm 1\%$

I.D.: permit drift to pass

Wall Thickness: not more than 12.5% under thickness listed in specification

API 5L

REQUIRED

Weight: $\pm 10\%$, - 3.5%

Diameter: $\pm 1\%$

Wall Thickness: not more than 12.5% under and 20% over thickness listed in specification

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Steel Casing Specifications Comparison

LENGTH			
<u>ASTM A53</u>	<u>ASTM A106</u>	<u>ASTM A589</u>	<u>API 5L</u>
<u>Single-Random</u> : 16 to 22 ft., Not more than 5% jointers <u>Plain-Ends</u> : 5% may be 12 to 16 ft. Extra-Strong and Lighter: varies	<u>Single-Random</u> : 16 to 22 ft., 5% 12 to 16 <u>Double-Random</u> : Average 35 ft., min 22 ft., and 5% 16 to 22 <u>Jointers</u> : None allowed	Type I, II, IV: random 16-22 ft. Type III: random 3 - 6 or 6 - 10 ft. subject to order change/negotiation	<u>T & C: Nominal 20 ft.</u> Minimum - 16 ft. Maximum - 22.5 ft. Minimum Average - 17.5 ft. <u>T & C: Nominal 40 ft.</u> Minimum - 20 ft. Maximum - 45 ft. Minimum Average - 35 ft. <u>Plain End: Nominal 20 ft.</u> Minimum - 9.0 ft. Maximum - 22.5 ft. Minimum Average 17.5 ft. <u>Plain End: Nominal 40 ft.</u> Minimum - 14 ft. Maximum - 45 ft. Minimum Average - 35 ft.
[NOTE: All lengths subject to order]			

WORKMANSHIP, FINISH & APPEARANCE			
<u>ASTM A53</u>	<u>ASTM A106</u>	<u>ASTM A589</u>	<u>API 5L</u>
Requires: inspection, imperfection 12.5% into wall considered defects, removal by grinding if wall thickness OK, repair by welding subject to agreement, pipe to be straight	Same as A 53	Requires: straight and free of defects, allows imperfections less than 12.5% wall, free of burrs, zinc coating/galvanized free of voids	Requires: visual inspection defects include dents, offset of plates, weld bead flaws. Correction includes repair by grinding welding or shortening

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END FINISH			
<u>ASTM A53</u>	<u>ASTM A106</u>	<u>ASTM A589</u>	<u>API 5L</u>
<u>Standard Weight or Extra Strong:</u> plain-end with bevel <u>Double Extra Strong:</u> plain-end square cut <u>Threaded:</u> requires compliance with ANSI B1.20.1, protection	<u>NPS 2" or Smaller:</u> plain-end with square cut or beveled <u>Over 2" NPS:</u> standard weight or extra strong plain-end beveled; over extra strong plain-end square	Threaded: required of all, protection, dimensions specified in specifications (ANSI B1.20.1)	All pipe threaded plain-end, or bell and spigot. <u>T & C:</u> thread conforming to API Standard 5B, thread protection required. <u>Plain-End:</u> Beveled Minimum Average - 35 ft.

GALVANIZED PIPE			
<u>ASTM A53</u>	<u>ASTM A106</u>	<u>ASTM A589</u>	<u>API 5L</u>
Coated inside/out by hot-dip Weight Coat: 1.8 oz/ft ² Test: specified Other Test: per on base material	NONE	Same as A 53	No reference - pipe to be coated to protect against rust

INSPECTION			
<u>ASTM A53</u>	<u>ASTM A106</u>	<u>ASTM A589</u>	<u>API 5L</u>
Purchaser: right to inspect with reasonable facilities to satisfy Producer: responsible for performance of inspection and tests as specified	NONE	Same as A 53	Similar to A 53

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REJECTION			
<u>ASTM A53</u>	<u>ASTM A106</u>	<u>ASTM A589</u>	<u>API 5L</u>
Based upon compliance with test and inspection by manufacturer or purchaser. Disposition matter of agreement.	NONE	Same as A 53	Similar to A 53

MARKING			
<u>ASTM A53</u>	<u>ASTM A106</u>	<u>ASTM A589</u>	<u>API 5L</u>
Legibly marked by rolling, stamping or stencil with: 1) manufacturer 2) kind of pipe, i.e., continuous, electric resistance (Grade A or B), seamless (Grade A or B) 3) specification number 4) length	Legibly marked with: 1) manufacturer 2) specification number 3) grade 4) heat number 5) schedule number 6) length 7) weight (>4")	Legibly marked by rolling, stamping or stencil with: 1) manufacturer 2) type number 3) kind of pipe (i.e., butt-welded, electric resistance, seamless) 4) grade 5) diameter 6) wall thickness 7) specification number 8) length	Legibly stenciled or stamped with: 1) manufacturer 2) "Spec 5L" or "API 5L" 3) size 4) weight/ft. 5) grade 6) process manufacturer 7) test pressure if higher spec. 8) thread type Supplemental requirements exist which are Group specific.

Steel Well Casing Markings Required by Michigan Well Code

Each length of pipe must be legibly marked, by the producing mill, with all of the following information:

**MANUFACTURER'S
NAME**

KIND OF PIPE
(CONTINUOUS WELDED, ELECTRIC
RESISTANCE WELDED, OR SEAMLESS)

**WEIGHT
OR
SCHEDULE**

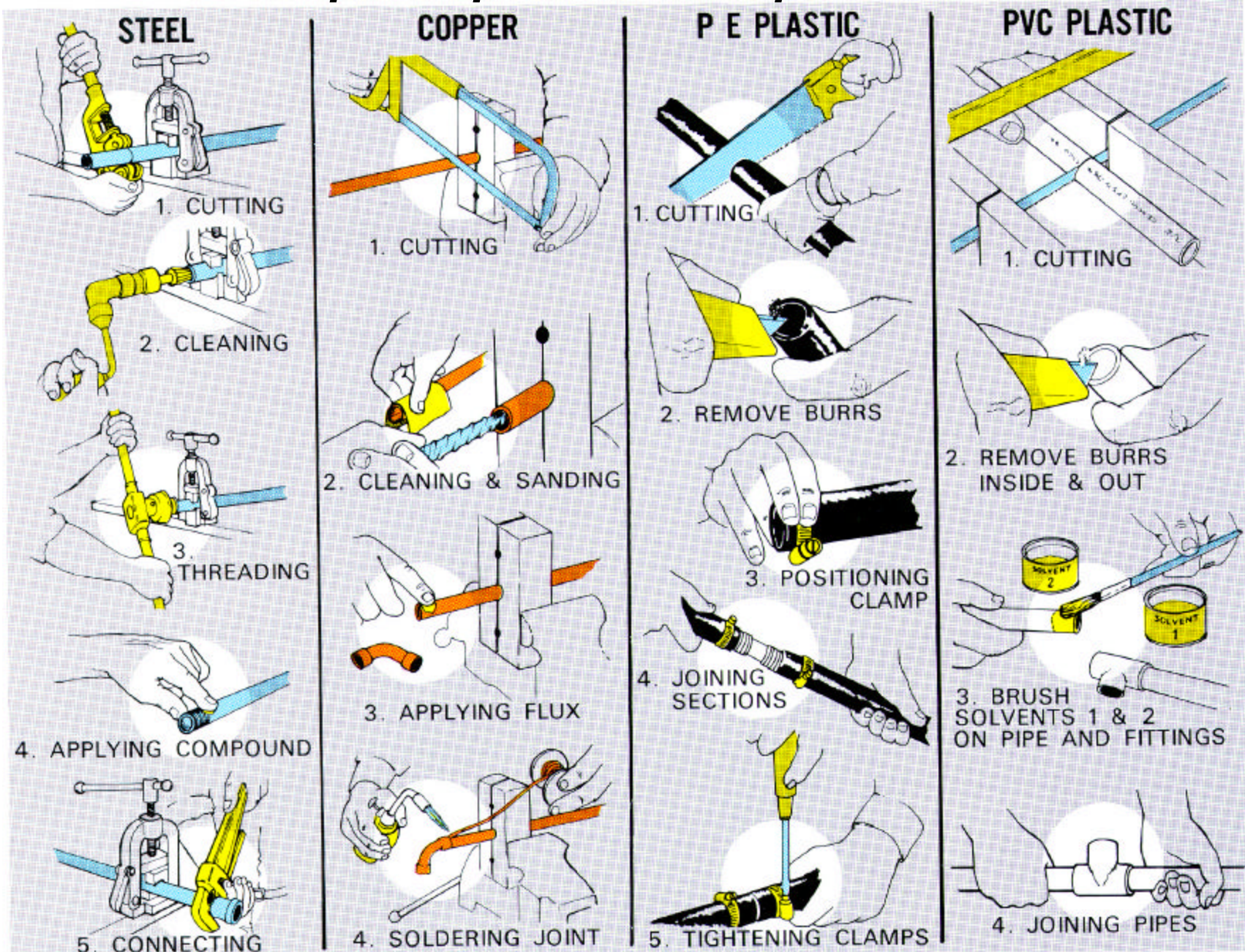
**NOMINAL OR
OUTSIDE DIAMETER**

**SPECIFICATION
NUMBER**

LENGTH

**HEAT NUMBER
OR
LOT NUMBER**

Pipe Preparation Comparison



Types of Valves

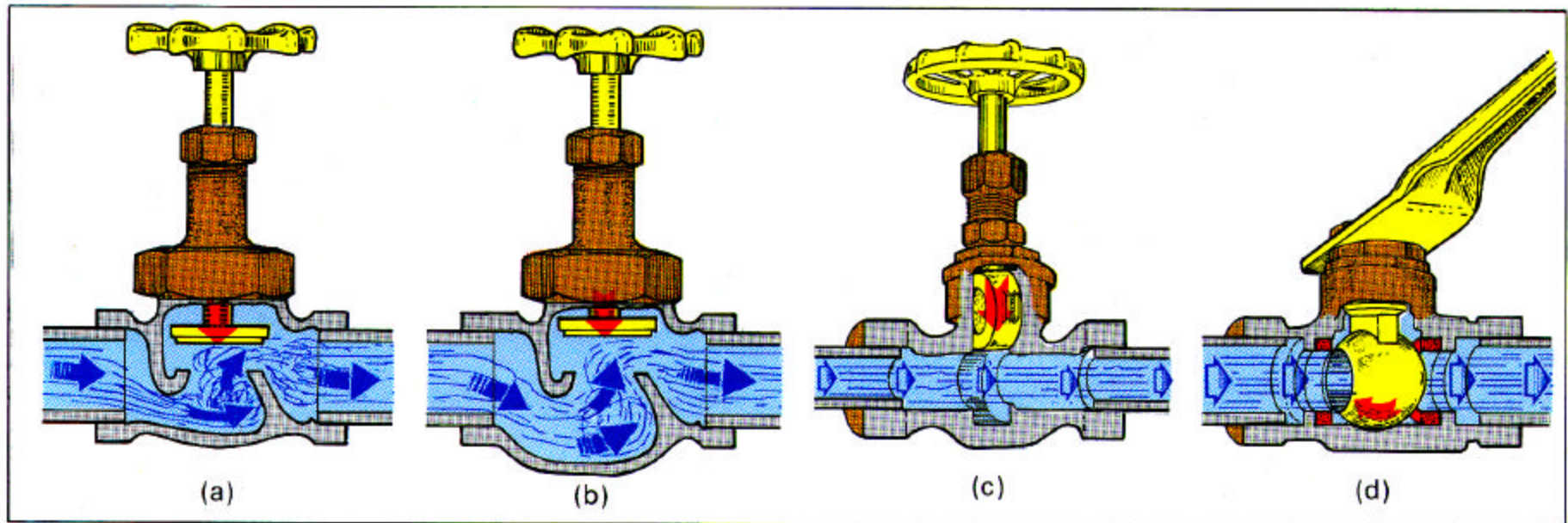
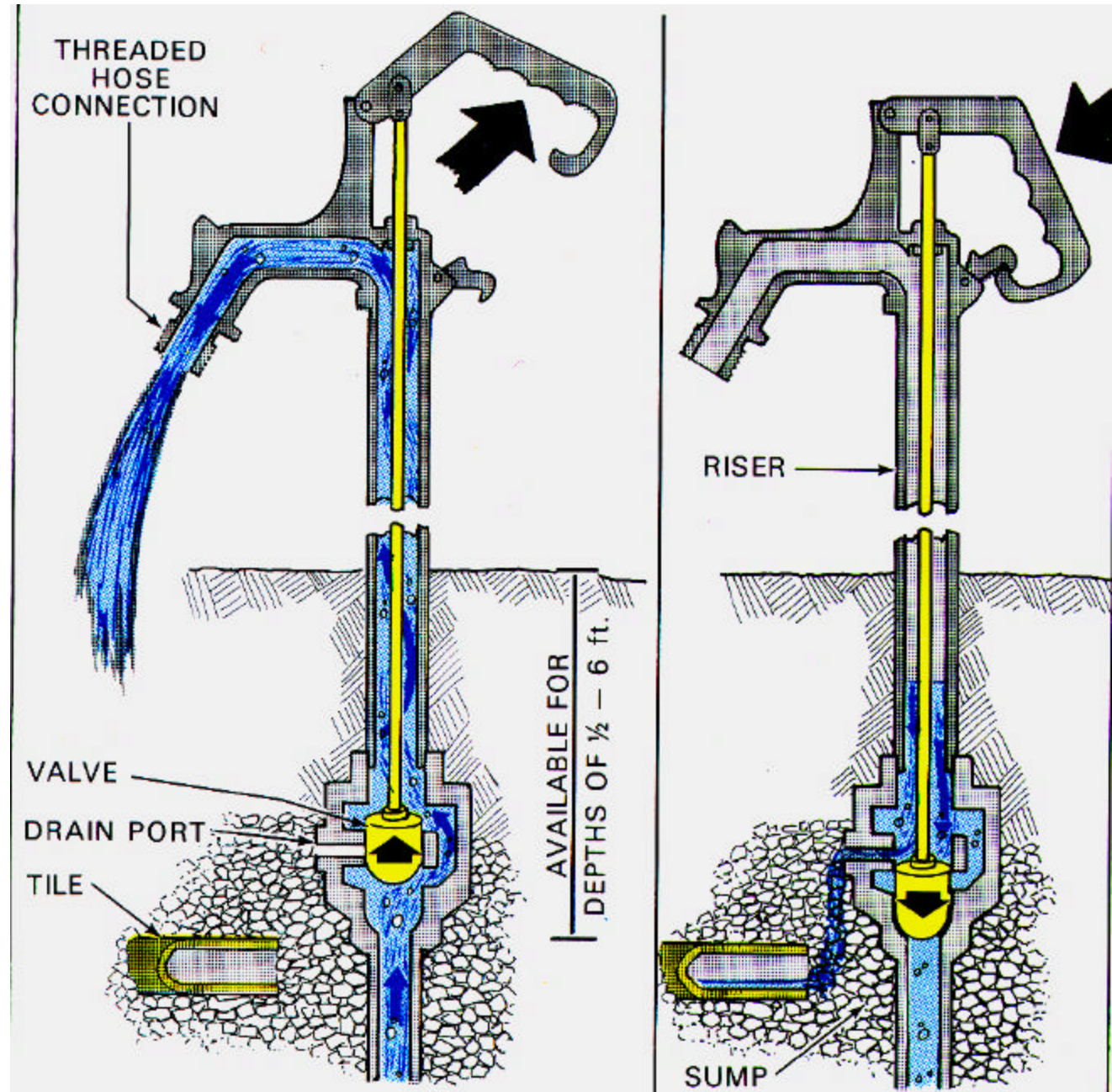


FIGURE 119. Types of cutoff valves. (a) Economy globe valve causes high resistance to water flow because of narrow passageways and sharp turns. (b) Globe valve with larger passageways has lower resistance to water

flow. (c) Gate valve, when completely open, provides straight-line water-flow passage with very low resistance. (d) Ball valve. It also provides easy water passage and low resistance.

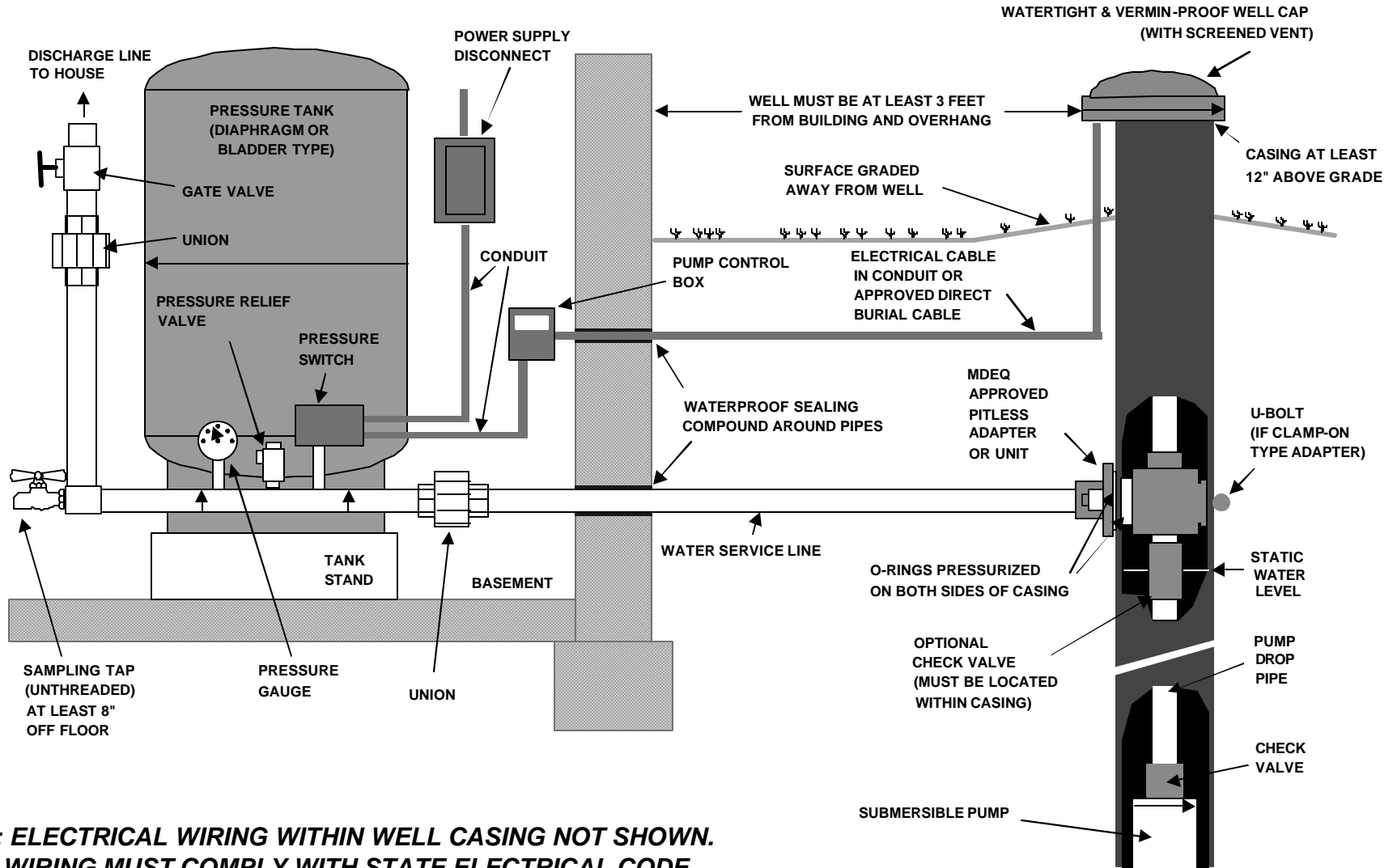
Yard Hydrant With Stop and Waste Valve



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DRINKING WATER AND RADIOLOGICAL PROTECTION DIVISION
GROUND WATER SUPPLY SECTION - WELL CONSTRUCTION UNIT

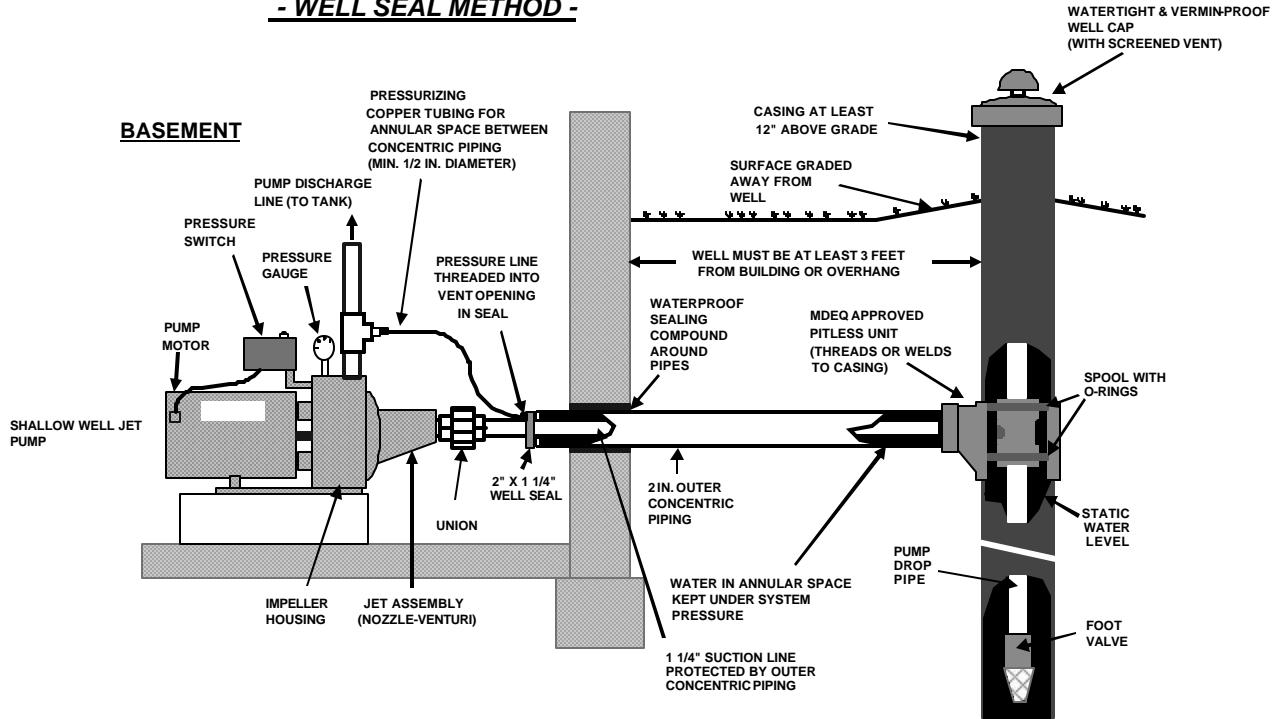
WATER SYSTEM WITH SUBMERSIBLE PUMP

(Typical Household Installation)

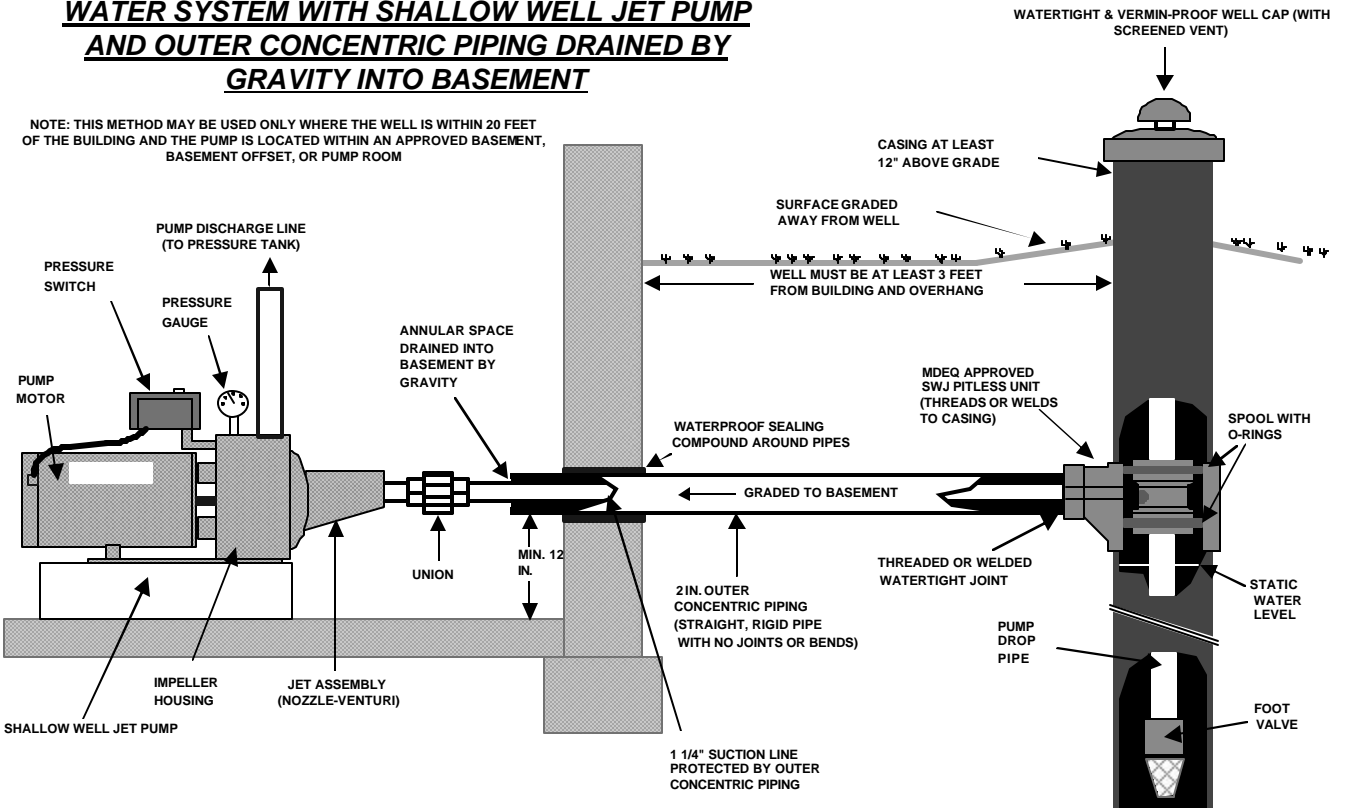


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DRINKING WATER AND RADIOLOGICAL PROTECTION DIVISION
GROUND WATER SUPPLY SECTION - WELL CONSTRUCTION UNIT

**WATER SYSTEM WITH SHALLOW WELL JET PUMP AND
PRESURIZED CONCENTRIC PIPING
- WELL SEAL METHOD -**

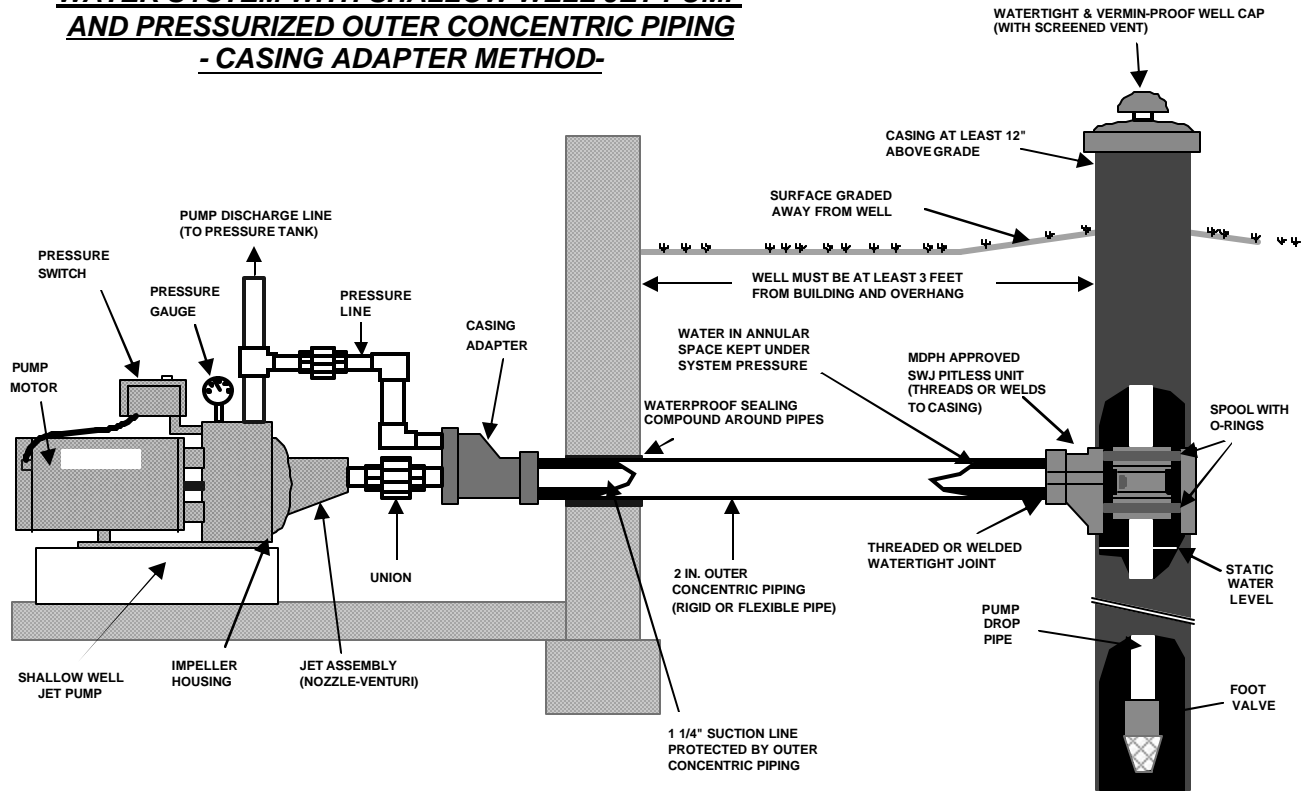


**WATER SYSTEM WITH SHALLOW WELL JET PUMP
AND OUTER CONCENTRIC PIPING DRAINED BY
GRAVITY INTO BASEMENT**

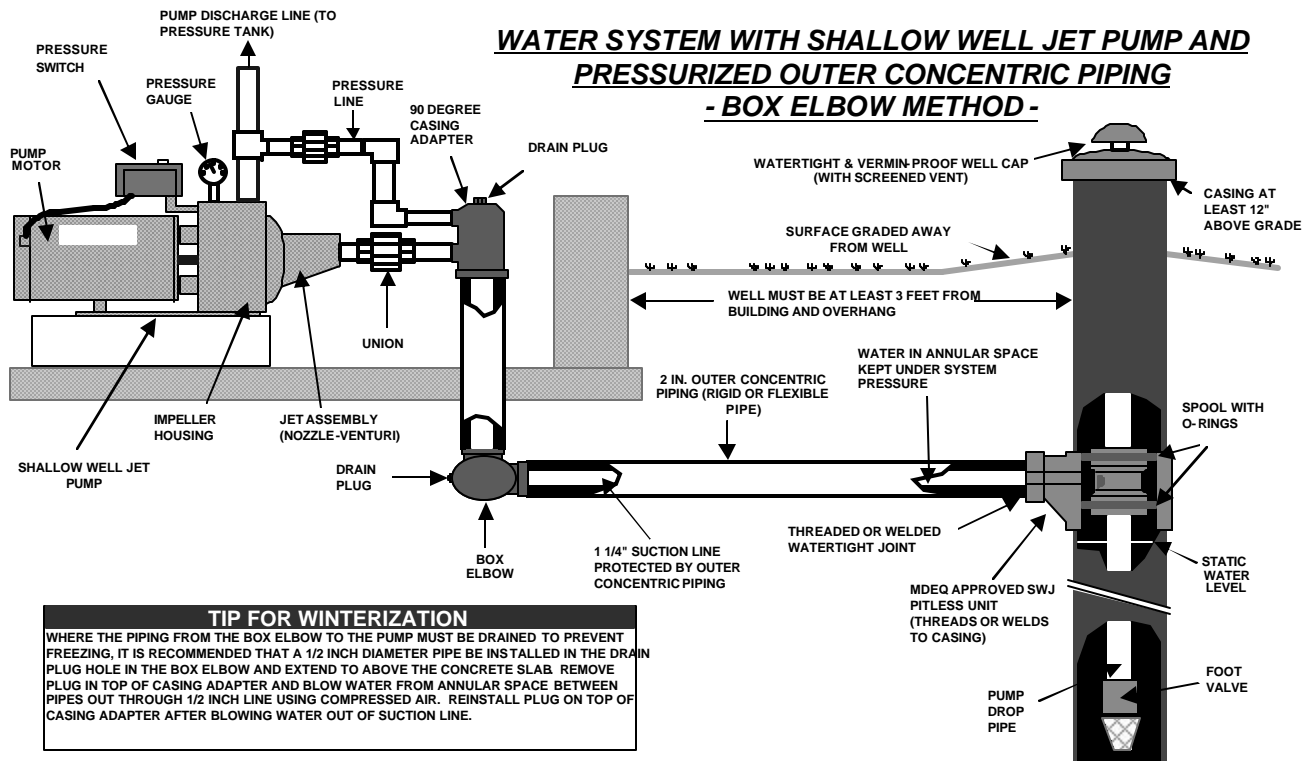


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GROUND WATER SUPPLY SECTION - WELL CONSTRUCTION UNIT

**WATER SYSTEM WITH SHALLOW WELL JET PUMP
AND PRESSURIZED OUTER CONCENTRIC PIPING
- CASING ADAPTER METHOD-**



**WATER SYSTEM WITH SHALLOW WELL JET PUMP AND
PRESSURIZED OUTER CONCENTRIC PIPING
- BOX ELBOW METHOD -**

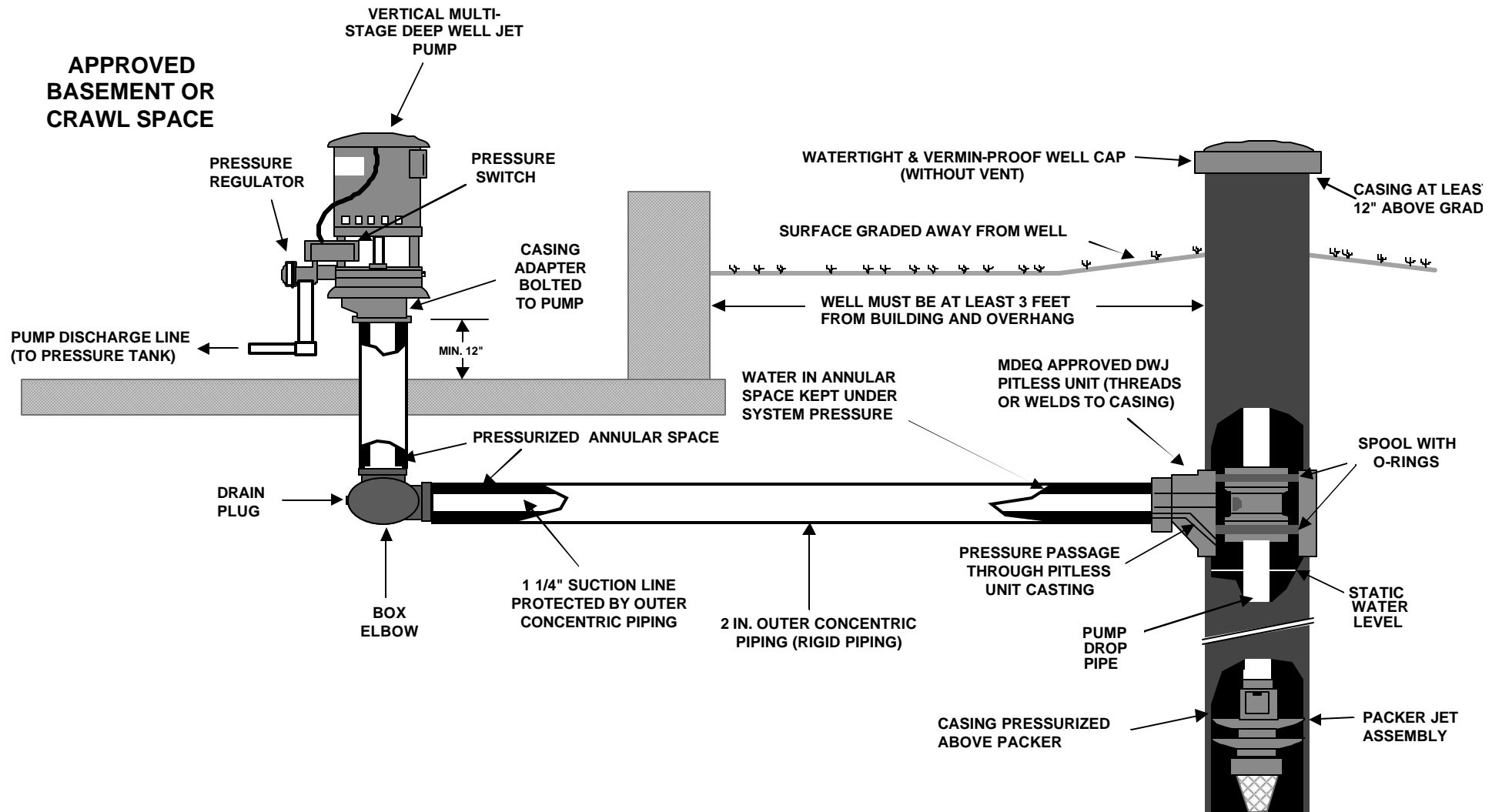


TIP FOR WINTERIZATION

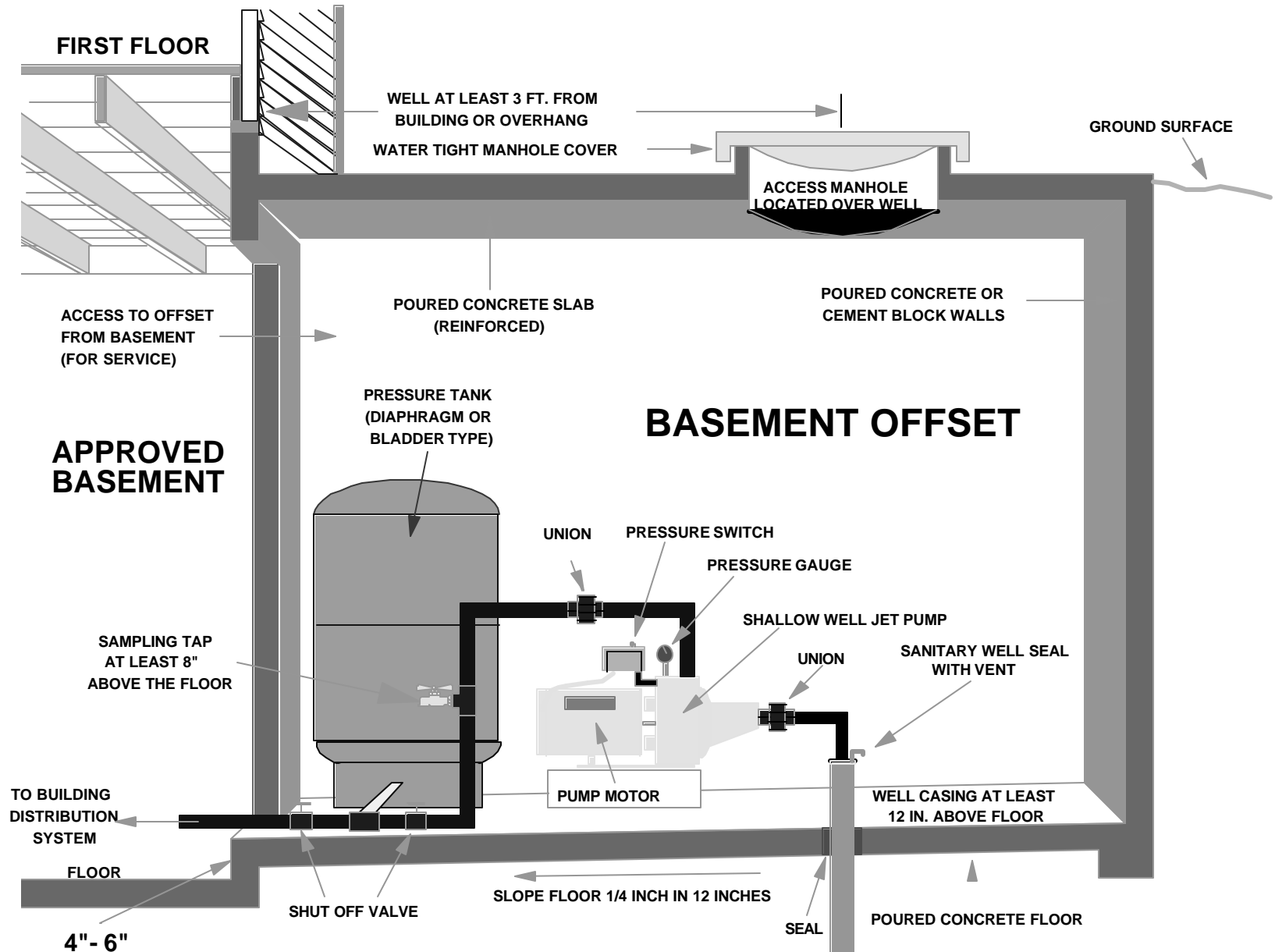
WHERE THE PIPING FROM THE BOX ELBOW TO THE PUMP MUST BE DRAINED TO PREVENT FREEZING, IT IS RECOMMENDED THAT A 1/2 INCH DIAMETER PIPE BE INSTALLED IN THE DRAIN PLUG HOLE IN THE BOX ELBOW AND EXTEND TO ABOVE THE CONCRETE SLAB. REMOVE PLUG IN TOP OF CASING ADAPTER AND BLOW WATER FROM ANNULAR SPACE BETWEEN PIPES OUT THROUGH 1/2 INCH LINE USING COMPRESSED AIR. REINSTALL PLUG ON TOP OF CASING ADAPTER AFTER BLOWING WATER OUT OF SUCTION LINE.

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
DRINKING WATER AND RADIOLOGICAL PROTECTION DIVISION
GROUND WATER SUPPLY SECTION - WELL CONSTRUCTION UNIT

WATER SYSTEM WITH DEEP WELL JET PUMP AND SINGLE PIPE
PACKER JET WITH PRESSURIZED OUTER CONCENTRIC PIPING -
BOX ELBOW METHOD -

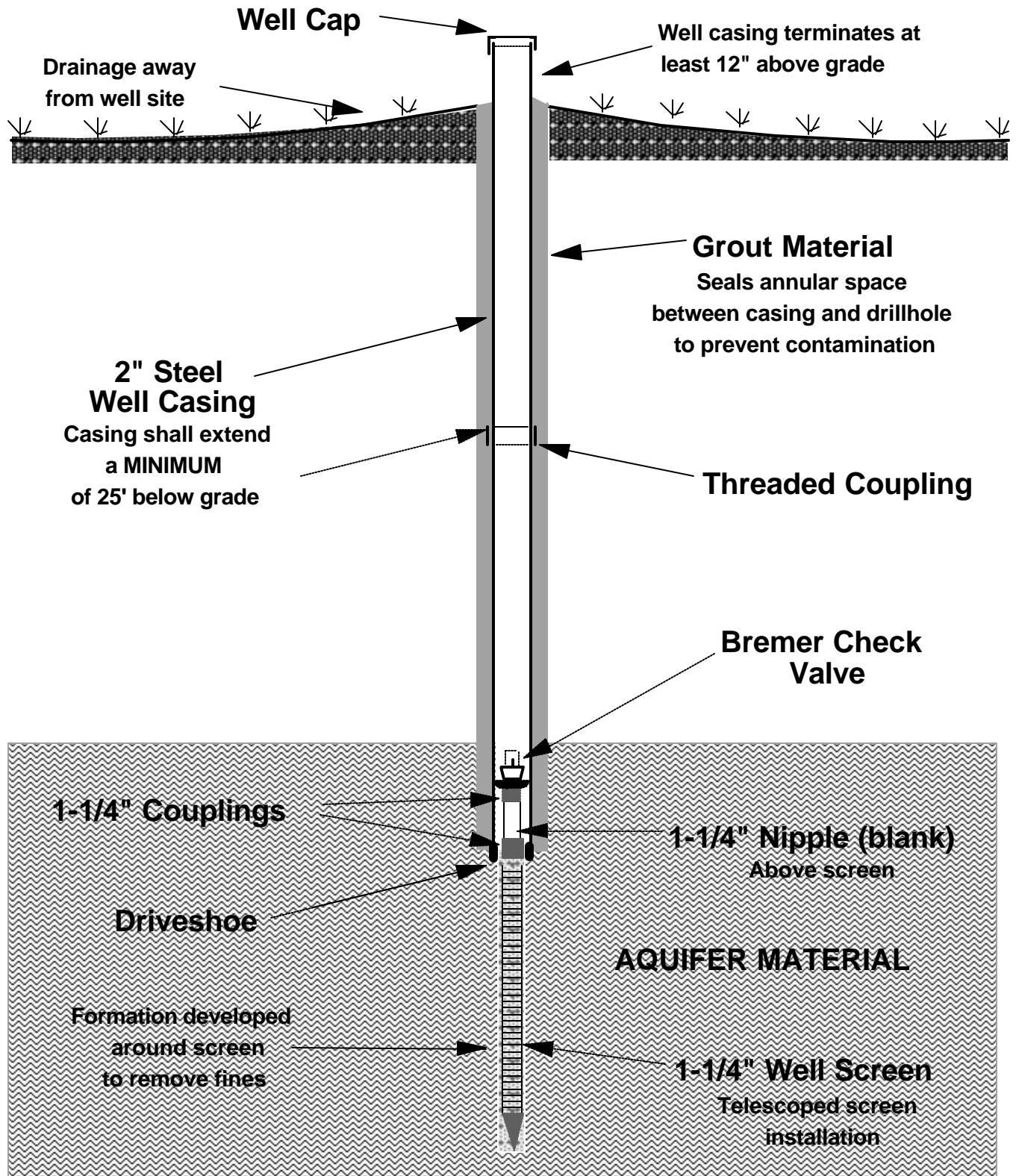


WATER SYSTEM IN BASEMENT OFFSET



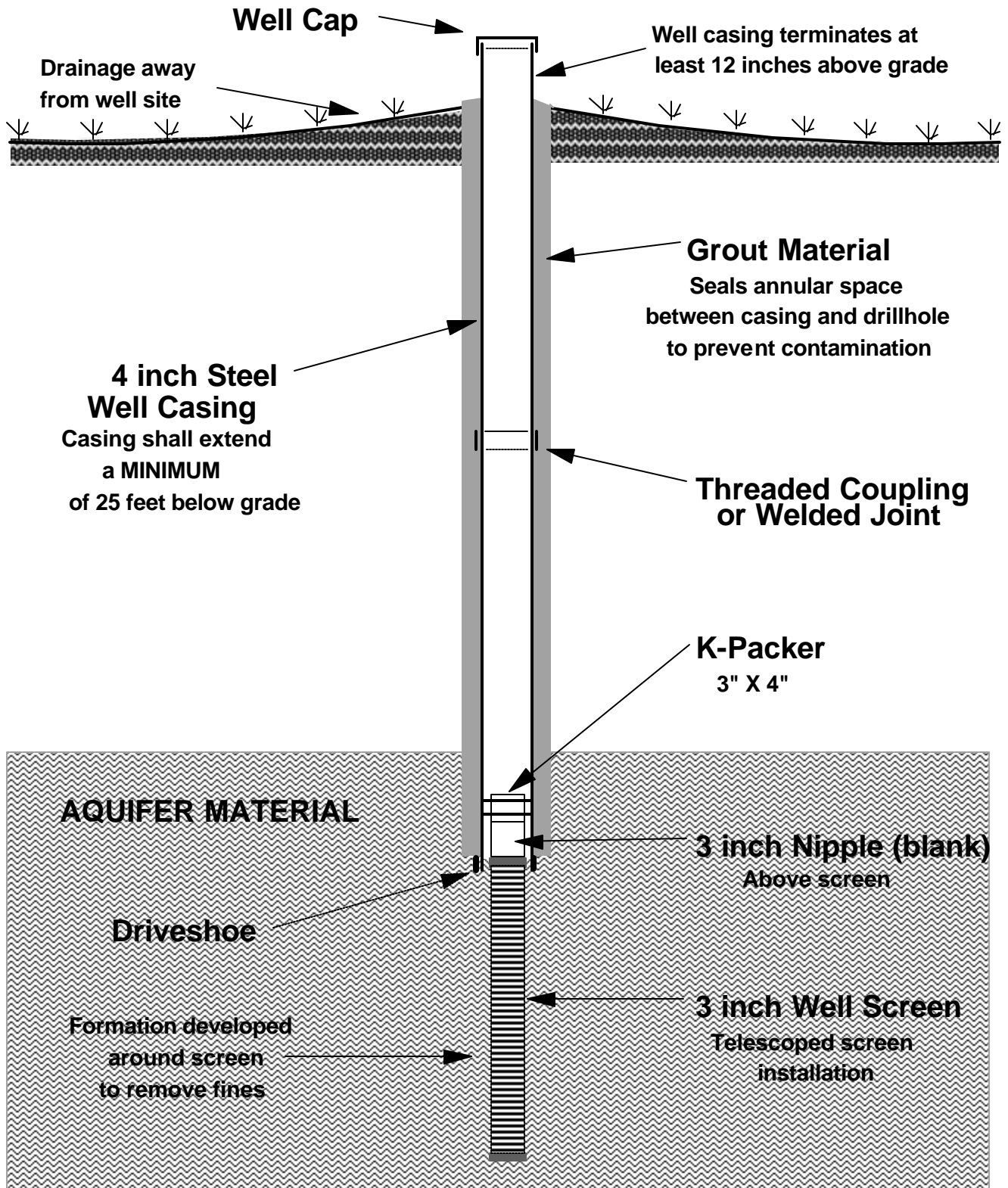
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WATER DIVISION
GROUNDWATER SECTION - WELL CONSTRUCTION UNIT

2 INCH SCREENED WELL CONSTRUCTION



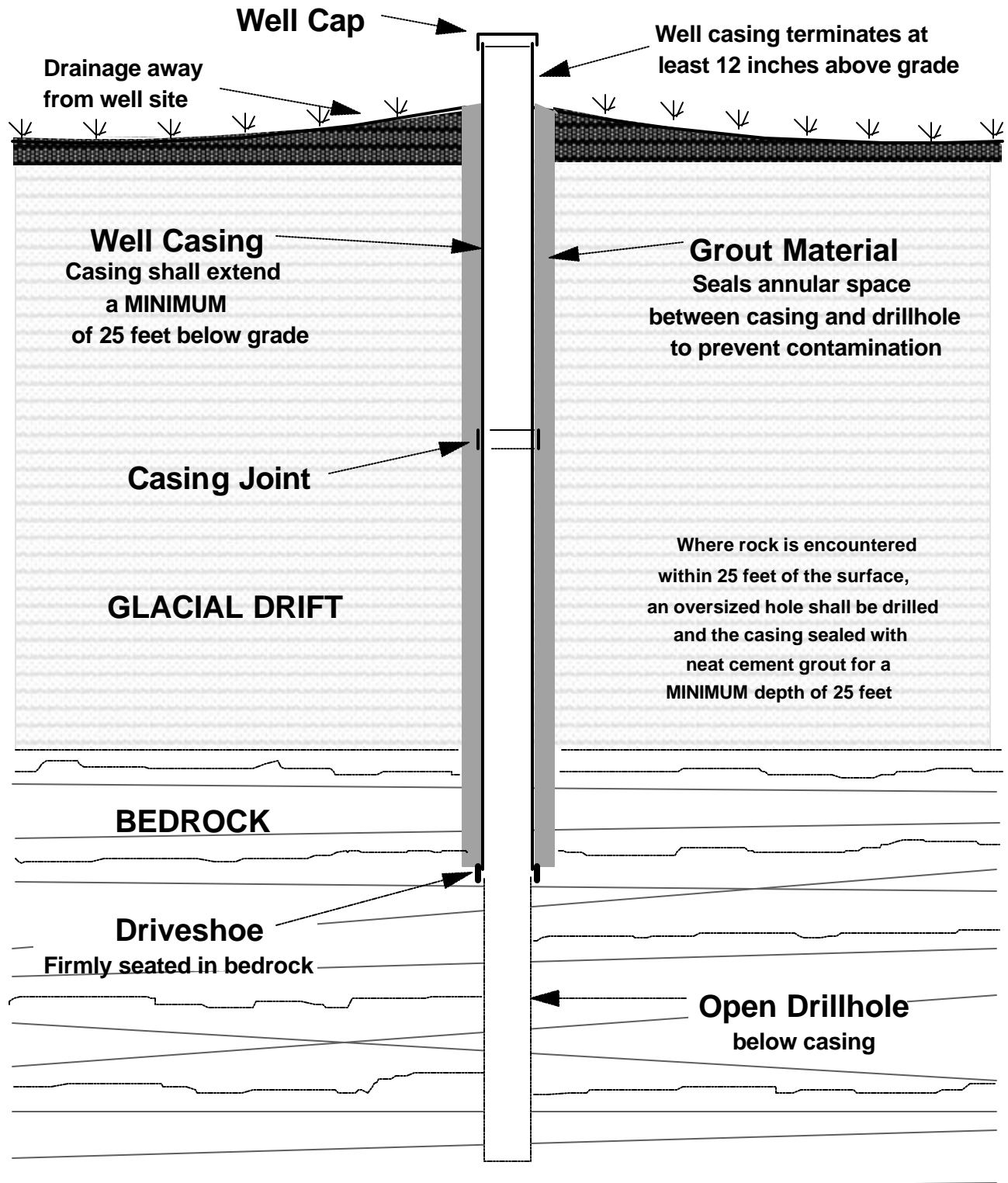
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WATER DIVISION
GROUNDWATER SECTION - WELL CONSTRUCTION UNIT

4 INCH SCREENED WELL CONSTRUCTION



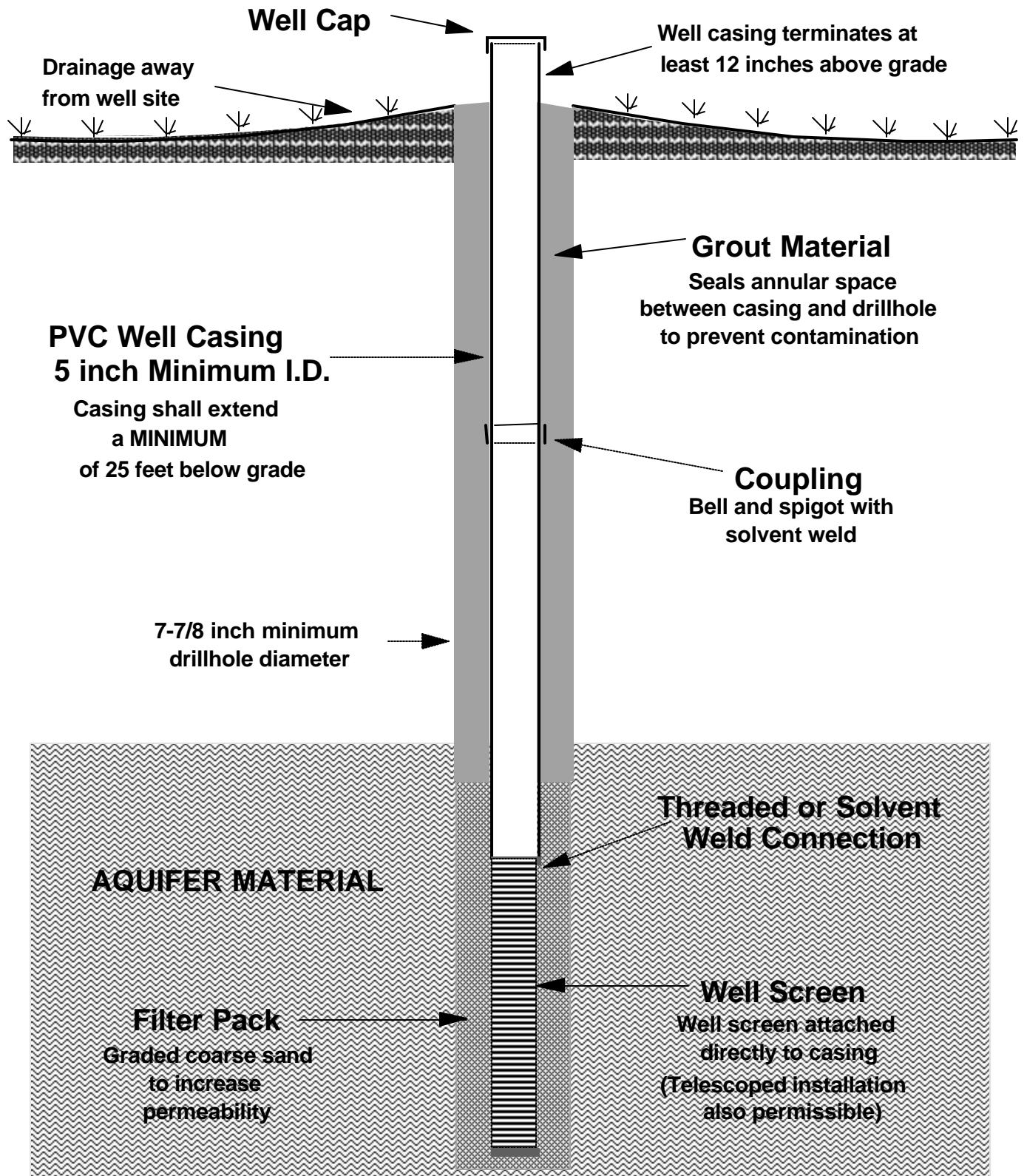
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WATER DIVISION
GROUNDWATER SECTION

ROCK WELL CONSTRUCTION



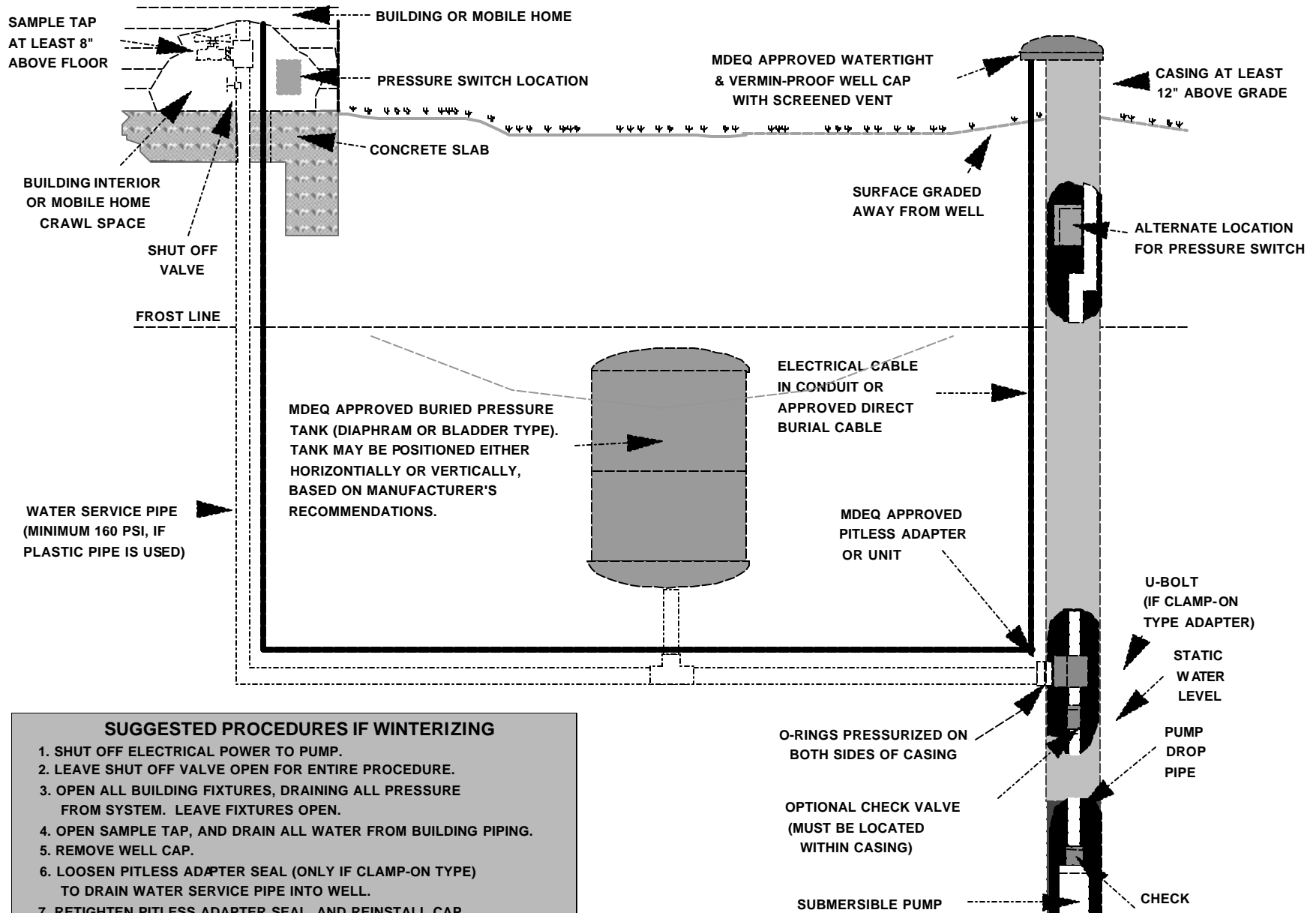
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5 INCH FILTER PACK CONSTRUCTION



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GROUNDWATER SECTION - WELL CONSTRUCTION UNIT

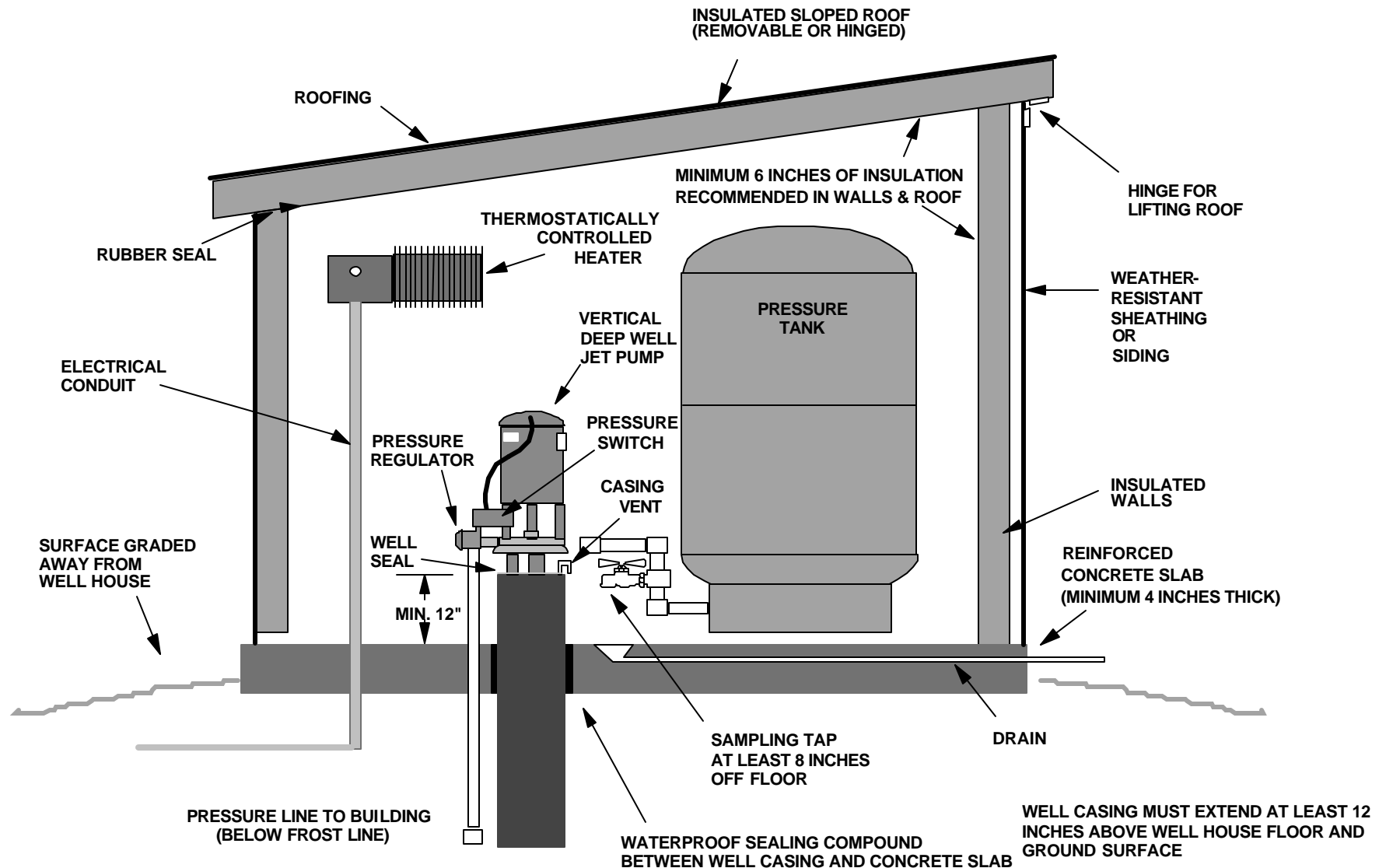
BURIED PRESSURE TANK INSTALLATION



SUGGESTED PROCEDURES IF WINTERIZING

1. SHUT OFF ELECTRICAL POWER TO PUMP.
2. LEAVE SHUT OFF VALVE OPEN FOR ENTIRE PROCEDURE.
3. OPEN ALL BUILDING FIXTURES, DRAINING ALL PRESSURE FROM SYSTEM. LEAVE FIXTURES OPEN.
4. OPEN SAMPLE TAP, AND DRAIN ALL WATER FROM BUILDING PIPING.
5. REMOVE WELL CAP.
6. LOOSEN PITLESS ADAPTER SEAL (ONLY IF CLAMP-ON TYPE) TO DRAIN WATER SERVICE PIPE INTO WELL.
7. RETIGHTEN PITLESS ADAPTER SEAL AND REINSTALL CAP.

ABOVE GRADE WELL HOUSE CONSTRUCTION



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Internet: www.michigan.gov/deq
Click on "Water," then "Drinking Water,"
then "Water Well Construction."

LOCAL HEALTH DEPARTMENT DIRECTORY

[Allegan County Health Dept.](#)

3255 122nd Ave., Suite 200
Allegan, MI 49010
www.allegancounty.org

[Bay County Health Dept.](#)

Washington Park Plaza
1212 Washington Ave.
Bay City, MI 48708-5994
www.co.bay.mi.us

[Berrien County Health Dept.](#)

769 Pipestone St.
P.O. Box 706
Benton Harbor, MI 49023-0706
www.berriencounty.org/healthdept

[Calhoun County Dept. of Public Health](#)

190 E. Michigan Ave., Suite A-100
Battle Creek, MI 49014
www.calhouncountymi.gov

[Chippewa County Health Dept.](#)

508 Ashmun St., Suite 120
Sault Ste. Marie, MI 49783
www.chippewahd.com

[Dickinson-Iron District Health Dept.](#)

601 Washington Ave.
Iron River, MI 49935
www.didhd.org

[District Health Dept. #4](#)

100 Woods Cir.
Alpena, MI 49707
www.dhd4.org

[Genesee County Health Dept.](#)

630 S. Saginaw St.
Flint, MI 48502-1540
www.gchd.us

[Huron County Health Dept.](#)

1142 S. Van Dyke

[Barry-Eaton District Health Dept.](#)

1033 Health Care Dr.
Charlotte, MI 48813
www.barryeatonhealth.org

[Benzie-Leelanau District Health Dept.](#)

6051 Frankfort Hwy, Suite 100
Benzonia, MI 49616
www.bldhd.org

[Branch-Hillsdale-St. Joseph Community Health Agency](#)

Human Services Building
570 Marshall Rd.
Coldwater, MI 49036
www.bhsj.org

[Central Michigan District Health Dept.](#)

2012 E. Preston Ave.
Mt. Pleasant, MI 48858
www.cmdhd.org

[City of Detroit Health Dept.](#)

Herman Kiefer Health Complex
1151 Taylor, Building 4
Detroit, MI 48202
www.ci.detroit.mi.us/health/default.htm

[District Health Dept. #2](#)

630 Progress St.
West Branch, MI 48661
www.dhd2.org

[District Health Dept. #10](#)

521 Cobbs Street
Cadillac, MI 49601
www.dhd10.org

[Grand Traverse County Health Dept.](#)

2650 LaFranier Rd.
Traverse City, MI 49686
www.co.grand-traverse.mi.us

[Ingham County Health Dept.](#)

5303 S. Cedar

Bad Axe, MI 48413
www.hchd.us

[Ionia County Health Dept.](#)
175 E. Adams St.
Ionia, MI 48846
www.ioniacounty.org

[Kalamazoo County Health and Community Services Dept.](#)
3299 Gull Rd., P.O. Box 42
Nazareth, MI 49074-0042
www.kalcounty.com/hsd

[Lapeer County Health Dept.](#)
1800 Imlay City Road
Lapeer, MI 48446
www.lapeercounty.org

[Livingston County Dept. of Public Health](#)
2300 E. Grand River Ave., Suite 102
Howell, MI 48843-7578
www.lchd.org

[Macomb County Health Dept.](#)
43525 Elizabeth Rd.
Mt. Clemens, MI 48043
www.macombcountymi.gov/

[Midland County Dept. of Public Health](#)
220 W. Ellsworth
Midland, MI 48640-5194
www.co.midland.mi.us/health/

[Monroe County Health Dept.](#)
2353 S. Custer Rd.
Monroe, MI 48161
www.co.monroe.mi.us/publichealth

[Northwest Michigan Community Health Agency](#)
220 W. Garfield St.
Charlevoix, MI 49720
www.nwhealth.org

P.O. Box 30161
Lansing, MI 48909-7661
www.ingham.org

[Jackson County Health Dept.](#)
1715 Lansing Ave., Suite 221
Jackson, MI 49202
www.co.jackson.mi.us/hd

[Kent County Health Dept.](#)
700 Fuller Ave., N.E.
Grand Rapids, MI 49503
www.accesskent.com

[Lenawee County Health Dept.](#)
1040 S. Winter, Suite 2328
Adrian, MI 49221-3871
www.lenawee.mi.us/health_department/

[Luce-Mackinac-Alger-Schoolcraft District Health Dept.](#)
14150 Hamilton Lake Rd.
Newberry, MI 49868
www.lmasdhd.org

[Marquette County Health Dept.](#)
184 U.S. 41 Highway
Negaunee, MI 49866
www.mqthealth.org

[Mid-Michigan District Health Dept.](#)
615 N. State Rd., Suite 2
Stanton, MI 48888
www.mmdhd.org

[Muskegon County Health Dept.](#)
209 E. Apple Ave., C173
Muskegon, MI 49442
www.muskegonhealth.net

[Oakland County Health Div.](#)
1200 N. Telegraph Rd., Dept. 432
Pontiac, MI 48341-0432
www.oakgov.com

Ottawa County Health Dept.
12251 James St., Suite 200
Holland, MI 49424
www.co.ottawa.mi.us

Saginaw County Dept. of Public Health
1600 N. Michigan Ave.
Saginaw, MI 48602-5395
www.saginawpublichealth.org

Shiawassee County Health Dept.
310 N. Shiawassee St.
Corunna, MI 48817
<http://health.shiawassee.net>

Tuscola County Health Dept.
1309 Cleaver Rd.
Caro, MI 48723
www.tchd.us

Washtenaw County Public Health Dept.
555 Towner Ave.
P.O. Box 915
Ypsilanti, MI 48197-0915
www.ewashtenaw.org

Western Upper Peninsula District Health Dept.
540 Depot
Hancock, MI 49930
www.westernuphealth.org

Public Health Delta and Menominee Counties
2920 College Ave.
Escanaba, MI 49829-9597
www.phdm.org

Sanilac County Health Dept.
171 Dawson St.
Sandusky, MI 48471
www.sanilachealth.com

St. Clair County Health Dept.
3415 28th St.
Port Huron, MI 48060
www.stclaircounty.org

Van Buren-Cass County District Public Health Dept.
57418 CR 681, Suite A
Hartford, MI 49057
www.vbcassdhd.org

Wayne County Health Dept.
33030 Van Born Rd.
Wayne, MI 48184
www.waynecounty.com